ABSTRACT

Surface roughnesses of a rear surface 10a of a combustion chamber 10 and an inner wall 11a of a cooling cavity 11 of a piston 1 are equal to or less than 6.3S (areas a' and b' indicated by chain double-dashed lines). The areas of which surface roughness is equal to or less than 6.3S are surface-coated with a layer of a self-cleaning catalyst. Accordingly, the oil is less subject to remain on the surface-coated areas, so that oil coking and a decrease in the coefficient of heat transfer can be avoided, thereby preventing an increase in temperature and deterioration in strength of the piston caused by coking. Therefore, the piston 1, 30 for an internal combustion engine which has a simple structure to be compact and to avoid an increase in cost and easily responds to increased engine power without increasing an amount of the cooling oil and the capacity of an oil cooler can be obtained.